

# PTC (15-Day Pre-Permit Construction) Application

**St. Luke's Regional Medical Center  
Twin Falls, Idaho**

Prepared for  
**St. Luke's Regional Medical Center**

May 2007

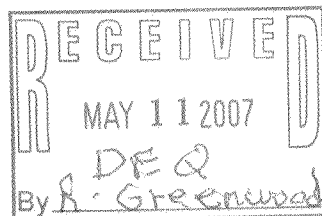
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# CH2MHILL TRANSMITTAL



**To:** Idaho Department of Environmental  
Quality  
1410 North Hilton  
Boise, ID 83706

**From:** Rick McCormick/CH2M HILL

**Attn:** Mr. Bill Rogers

**Date:** May 11, 2007

**Re:** St. Lukes Magic Valley Medical Center 15-Day PTC

**We Are Sending You:**

Method of shipment: Hand Delivered

☒ Attached

Under separate cover via

Shop Drawings



Documents

Tracings

Prints

Specifications

Catalogs

Copy of letter



Other: CD

Quantity	Description
1	St. Lukes Magic Valley Medical Center 15-Day PTC
1	CD: Modeling files and estimates

If the material received is not as listed, please notify us at once.

Remarks:

For your review. Please contact me with your comments or questions at 208-383-6457.

Copy To:

Jeff Hull, SLRMC (2 copies)

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Department of Environmental Quality  
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## **St. Luke's Regional Medical Center Twin Falls, Idaho**

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- 1 Modeling Files and Emissions XL Spreadsheet Files CD

## 1.0 Introduction

On behalf of St. Luke's Regional Medical Center (SLRMC), CH2M HILL has prepared a 15-Day Permit-to-Construct (PTC) application for a new full service hospital that will provide inpatient and outpatient health care in Twin Falls, Idaho. The facility name of the new hospital is the St. Luke's Magic Valley Hospital (SLMVH). To expedite construction for this new facility, the requirements for Pre-Permit Construction approval will be followed in accordance with the *Rules for the Control of Air Pollution in Idaho* (IDAPA) 58.01.01.213.02.

An application fee of \$1,000.00 has been included with the application submittal in accordance with IDAPA 58.01.01.226. A signed general information application form GI has also been included with this application package. Completed Idaho Department of Environmental Quality (DEQ) application forms are included in Appendix A.

An informational meeting has been scheduled at the Land Group, Inc. office located at 140 Rivervista Place in Twin Falls, Idaho from 4:00 to 5:00 PM on Monday May 14, 2007. This public announcement was published in the Twin Falls –Time News on May 6, 2007. A copy of the public announcement is included in Appendix B.

This pre-permit construction and PTC application includes a process description, plot plan, process flow diagram, emission estimates, modeling protocol and results, and regulatory review. This application is intended to satisfy the requirements for Pre-Permit Construction in accordance with IDAPA 58.01.01.213.

## 2.0 Process Description

This approximate 41-acre site, located at the corner of Grandview Drive and Pole Line Road/Highway 93. This is primarily a rural area currently used for agriculture. A subdivision housing development currently exists located to the south. The general project location is shown in Figure 1.

Medical services will include emergency room, X-ray, MSTI (cancer center), ICU, labor and delivery services, in patient rooms for medical and surgical patients, in patient and out patient operating facilities, employee daycare, pharmacy, chapel, education/conference facilities, lab/pathology, physician offices. The hospital will not provide an on-site laundry service.

The Central Heat Plant hospital building will consist of 20 dual fuel boilers and 4 emergency standby generators for supplying building heat, steam instrument sterilization, and emergency electric power for maintaining hospital operations. There will be 16-dual fuel boilers each with a heat input rating of 2.0 MMBtu/hr for supplying building heat to all of the hospital buildings. A second set of four-dual fuel boilers each with a heat input rating of 4.184 MMBtu/hr will be used to make steam for instrument sterilization. All boilers will utilize natural gas as the primary fuel and propane as a backup fuel. Four 1500 kilowatt (kW) diesel emergency generators will be used to provide emergency power for all hospital operations. One 300 kW emergency generator will be dedicated to the Medical Office



Building (MOB) for emergency power. Additionally, there will be two cooling towers located on the east side of the Central Heat Plant and five underground storage tanks (USTs) present at the hospital. There is one 12,000 gallon jet fuel UST proposed to be located immediately east of the helipad and four 15,000 gallon diesel USTs located immediately west of the Central Heat Plant that will be used to fuel the emergency generators.

### **3.0 Scaled Plot Plan**

The project boundaries and scaled facility layout are shown in Figure 2. In addition, all of the emission generating sources are shown in Figure 2.

### **4.0 Potential to Emit Emission Estimates**

Emission calculations have been revised from the initial modeling protocol to reflect operational changes proposed by the hospital. The annual emission rates for the building heat and steam boilers located at the Central Heat Plant are based on the sum of 8,760 hours using natural gas and 96 hours using propane per year.

SLMVH is requesting permit limits for diesel generator maintenance testing and operation. The emission rates for the four Central Heat Plant diesel generators are based on 200 hours of operation per year. The emission rates for the MOB diesel generator is based on 500 hours of operation per year. In addition, load bank testing will be limited to one diesel generator 6 hours per day (24-hour period). No more than one generator shall be tested per day.

Particulate drift was estimated for the two cooling towers and VOC emissions were estimated from five underground storage tanks. There will be no emission controls for any of the emitting sources at the hospital.

Emission estimates were calculated based on emission factors provided by available manufacturer data including Caterpillar Engine Generators and from the U.S. Environmental Protection Agency (EPA) *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1: Chapter 1 External Combustion Sources, Section 1.4 Natural Gas Combustion and Section 1.5 Liquefied Petroleum Gas Combustion*. In addition, the U.S. EPA Tanks program, version 4.0.9d, was used to estimate VOC emissions emanating from one jet fuel and four diesel USTs.

Toxic Air Pollutant (TAP) emissions were estimated and compared to the screening emission limits (EL) specified in IDAPA 58.01.01 585 and 586. Modeling was performed for those TAPs whose emission estimate is greater than the EL.

Emission calculations are included in Appendix C. Manufacturer data for the boilers and standby generators are provided in Appendix D.

### **5.0 Facility Classification**

The SLMVH is not a major facility as defined in IDAPA 58.01.01.008.10, nor is it a designated facility as defined in IDAPA 58.01.01.006.26. The primary Standard Industrial Classification (SIC) code for the facility is 8062, *General Medical and Surgical Hospitals*. The facility emits less than 100 tons per year of any regulated pollutant. The site is a minor

source for Hazardous Air Pollutants (HAPs) with total potential aggregate HAP emissions of less than 25 tons per year and emissions of any single HAP of less than 10 tons per year. The St. Luke Twin Falls hospital is not a listed facility in 40 CFR Part 52 (100 tons per year threshold) and is not otherwise subject to Part 52 New Source Review (PSD) requirements due to potential emissions less than all applicable PSD major source thresholds.

The SLMVH will be located in the city of Twin Falls, Twin Falls County, Idaho. Twin Falls County is located in an attainment area for carbon monoxide (CO), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), ozone (O<sub>3</sub>), and lead (Pb). There are no Class I areas within 10 kilometers of the facility.

## 6.0 Ambient Impact Analysis

An air dispersion modeling protocol was prepared by CH2M HILL and submitted to DEQ on April 12, 2007. The source parameters and modeling assumptions were identified within the modeling protocol. The protocol was approved via e-mail by DEQ on April 26, 2007. The air dispersion modeling protocol and DEQ approval are included in Appendix E.

Dispersion modeling was performed using ten individual sources which included the building heat and steam boilers, generators, cooling fans, and jet fuel UST vent. Sources were primarily modeled as point sources except the cooling fans and jet fuel UST vent which were modeled as volume sources. The Central Heat Plant will operate 16 dual fuel boilers (HBOIL1) that will be manifolded to a single exit stack and provide heat to the hospital buildings. These building heat boilers will use natural gas primarily and propane as a backup fuel. The Central Heat Plant will also maintain four dual fuel boilers (SBOIL2) that will process steam for sterilization. These four steam boilers manifold to a single exit stack and operate primarily on natural gas and propane as backup fuel. There will be one 300 kW standby generator that will be used to provide emergency power to the MOB (GEN1). The Central Heat Plant will also maintain four potential 1500 kW diesel generators (GEN2-5) that will be used to provide emergency power to the other hospital buildings. The only UST that contributed significantly to the overall facility-wide emissions was the 12,000 gallon jet fuel storage tank which was included in the modeling. The four 15,000 gallon diesel USTs breathing loss emissions were considered insignificant and were not included in the modeling analysis.

Short term boiler emission rates were based on the higher hourly emission rate of either natural gas or propane by pollutant. VOC emissions were not modeled because VOC is regulated as a precursor to ozone and there is no ambient standard for VOC. Modeling was performed for those TAPs whose emission estimate is greater than the EL. A table showing TAPs with emissions above the EL are included in Appendix C.

Average flow rates and temperatures provided by the manufacturer were used for the dual-fuel boilers and emergency generators. The Caterpillar supplied manufacturer data for the 300 kW and 1500 kW emergency generators are based on an average hospital operating load of 40% (confirmed by the owner's electrical engineer of record). Modeling assumptions and results are detailed in a modeling report included in Appendix F.

A CD containing modeling files and emission estimates are attached with this report.

## 7.0 Applicable Requirements

A regulatory analysis was performed for the proposed St. Luke Twin Falls hospital to determine the applicability of state and federal air quality regulations. The regulatory applicability determinations are included in this section.

The following sections address air quality regulatory compliance requirements for the hospital. As detailed below, the source will comply with all applicable Idaho air quality regulations codified in IDAPA 58.01.01, as well as applicable EPA Code of Federal Regulations (CFR).

### Federal Regulations

#### **New Source Review and Prevention of Significant Deterioration Applicability—40 CFR Parts 51 and 52**

In accordance with EPA and IDAPA 58.01.01. 205 rules, the proposed facility will not be required to submit a construction permit application subject to the requirements of New Source Review (NSR) as it is not a major new source. The requirements of NSR vary, depending on whether the proposed facility will be located in a non-attainment or attainment area for NAAQS.

#### **New Source Review for Non-Attainment Areas**

Non-Attainment Area NSR is the portion of NSR that applies to areas that are not in attainment of NAAQS. Twin Falls County is classified as attainment or unclassifiable for all NAAQS. Therefore, Non-Attainment Area NSR is not required for the proposed facility.

#### **New Source Review for Attainment or Unclassifiable Areas**

Prevention of Significant Deterioration (PSD) is the portion of NSR that applies to pollutants that are in attainment of NAAQS, or are unclassifiable. Twin Falls County is classified as attainment or unclassifiable for the criteria pollutants NO<sub>x</sub>, CO, SO<sub>2</sub>, ozone, lead, and PM<sub>10</sub>. Therefore, new or modified air emission sources are potentially subject to PSD review for these pollutants, depending on the proposed facility's major source status and on the emission rates of NO<sub>x</sub>, CO, SO<sub>2</sub>, VOC, and PM<sub>10</sub>.

A PSD review is required if the proposed facility is a major PSD source. A source is considered to be major if:

- It is included in a list of 28 specific source categories and its potential to emit any of the NSR-regulated pollutants exceeds 100 tpy, or
- If its PTE exceeds 250 tpy for any other source category.

The list of 28 specific source categories with the 100 tpy threshold does not include general medical and surgical hospitals. Therefore, the proposed source is not subject to a 100 tpy major source threshold for PSD review.

The proposed facility could only be considered to be a PSD major source if it has a potential to emit (PTE) greater than 250 tpy of any criteria pollutant. The proposed facility will not



have a PTE greater than 250 tpy for NO<sub>x</sub>, CO, VOC, and PM<sub>10</sub>, and will not be considered a major PSD source.

#### **New Source Performance Standards—40 CFR Part 60**

Internal combustion compression ignition engines are not subject to a New Source Performance Standard (NSPS). There is an NSPS standard for petroleum storage vessels constructed after July 23, 1984, Subpart Kb. This NSPS applies to tanks that have a storage capacity of 75m<sup>3</sup> (19,813 gallons), or greater. The jet fuel storage tank will have a storage capacity of 12,000 gallons and each diesel storage tank will have a capacity of 15,000 gallons. Therefore, the storage tanks are not subject to this NSPS.

#### **National Emission Standards for Hazardous Air Pollutants—40 CFR Part 63**

Section 112 of the Clean Air Act (CAA) Amendments relates to the release of air toxic contaminants. The requirements of CAA Section 112(g) or (j) are not applicable because the facility is not a major source of hazardous air pollutants (HAP) (40 CFR 63.40(b)). Part 63 NESHAPS applies to major sources of HAP, defined as PTE equal to or greater than 10 tpy for any single HAP or PTE equal to or greater than 25 tpy for total HAP. HAP emissions from the facility will be below these threshold amounts.

#### **Acid Rain Deposition Control Program—40 CFR Part 72, 73, 74, and 75**

The acid rain deposition control program applies to electric utility steam-generating units. The proposed facility is not a utility steam generating unit and not subject to the acid rain deposition control program based on the definition of an affected unit.

#### **Protection of Stratospheric Ozone—40 CFR Part 82**

Refrigerants that contain ozone-depleting substances are regulated under the Stratospheric Ozone Protection Program (40 CFR 82). The applicable requirements under this program will be performed including maintenance of equipment containing substances (such as, comfort coolers).

#### **Accidental Release Prevention Program—40 CFR Part 68**

The storage or use of listed hazardous substances above threshold amounts will not occur at the St. Luke's Twin Falls hospital. A Risk Management Plan (RMP) as described under Part 68 will not be required.

#### **Compliance Assurance Monitoring (CAM)—40 CFR Part 64**

The CAM rule (40 CFR 64) applies to each Pollutant Specific Emissions Unit (PSEU) when it is located at a major source that is required to obtain Title V, Part 70 or 71 permit and it meets all of the following criteria:

The PSEU must:

- be subject to an emission limitation or standard
- use a control device to achieve compliance
- have potential pre-control emissions that exceed or are equivalent to the major source threshold

The St. Luke's Twin Falls hospital is not a major facility nor will they contain any PSEUs. Therefore, the CAM rule is not applicable for this facility.

## **IDAPA Regulations**

### **IDAPA 58.01.01.123**

#### **CERTIFICATION OF DOCUMENTS**

“All documents, including but not limited to, application forms for permits to construct, application forms for operating permits, progress reports, records, monitoring data, supporting information, requests for confidential treatment, testing reports or compliance certifications submitted to the Department shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.”

### **IDAPA 58.01.01.124**

#### **TRUTH, ACCURACY AND COMPLETENESS OF DOCUMENTS.**

“All documents submitted to the Department shall be truthful, accurate and complete.”

### **IDAPA 58.01.01.125**

#### **FALSE STATEMENTS**

“No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under any permit, or any applicable rule or order in force pursuant thereto.”

### **IDAPA 58.01.01.130**

#### **STARTUP, SHUTDOWN, SCHEDULED MAINTENANCE, SAFETY MEASURES, UPSET AND BREAKDOWN.**

1. External Combustion Engines
2. Internal Combustion Engines

If an excess emission event occurs during startup, shutdown, scheduled maintenance, safety measures, upset or breakdown, St. Luke's Twin Falls hospital will comply with IDAPA 58.01.01.130 through 58.01.01.136.

In the event of an upset or breakdown of an engine, the malfunctioning unit would be shut down. This includes any malfunction that could create excess emissions.

### **IDAPA 58.01.01.156**

#### **TOTAL COMPLIANCE**

“Where more than one (1) section of these rules applies to a particular situation, all such rules must be met for total compliance, unless otherwise provided for in these rules.”

**IDAPA 58.01.01.157**

**TEST METHODS AND PROCEDURES**

1. External Combustion Engines
2. Internal Combustion Engines

If an emission test is required, St. Luke's Twin Falls hospital will adhere to procedures outlined in IDAPA 58.01.01.157.

**IDAPA 58.01.01.161**

**TOXIC SUBSTANCES**

1. External Combustion Engines
2. Internal Combustion Engines
3. 12,000 gallon jet fuel tank
4. 15,000 gallon diesel fuel tanks

“Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.”

See emission calculations in Appendix C , modeling results in Appendix F, and cadmium T-RACT analysis in Appendix G.

**IDAPA 58.01.01.200**

**PROCEDURES AND REQUIREMENTS FOR PERMITS TO CONSTRUCT**

1. External Combustion Engines
2. Internal Combustion Engines
3. 12,000 gallon jet fuel tank
4. 15,000 gallon diesel fuel tanks
5. Water Cooling towers

Upon approval of the 15-Day PTC by DEQ, St. Luke's Twin Falls hospital will follow the procedures and requirements outlined under IDAPA 58.01.01.200 for obtaining a PTC.

**IDAPA 58.01.01.210**

**DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS**

1. External Combustion Engines
2. Internal Combustion Engines
3. 12,000 gallon jet fuel tank
4. 15,000 gallon diesel fuel tanks

“In accordance with Subsection 203.03, the applicant shall demonstrate preconstruction compliance with Section 161 to the satisfaction of the Department.

The accuracy, completeness, execution and results of the demonstration are all subject to review and approval by the Department.”

See emission calculations in Appendix C , modeling results in Appendix F, and cadmium T-RACT analysis in Appendix G.

**IDAPA 58.01.01.213**

**PRE-PERMIT CONSTRUCTION**

1. External Combustion Engines
2. Internal Combustion Engines
3. 12,000 gallon jet fuel tank
4. 15,000 gallon diesel fuel tanks
5. Water Cooling towers

St. Luke’s Twin Falls hospital will comply with procedures and regulations outlined in this section in order to obtain the 15-Day PTC.

**IDAPA 58.01.01.213.02. Permit to Construct Procedures for Pre-Permit Construction**

**IDAPA 58.01.01.213.02.a Informational Meeting**

“Within ten (10) days after the submittal of the pre-permit construction approval application, the owner or operator shall hold an informational meeting in at least one (1) location in the region in which the stationary source or facility is to be located. The informational meeting shall be made known by notice published at least ten (10) days before the meeting in a newspaper of general circulation in the county(ies) in which the stationary source or facility is to be located. A copy of such notice shall be included in the application.” See a copy of the Public Meeting Notice in Appendix B.

**IDAPA 58.01.01.220**

**GENERAL EXEMPTION CRITERIA FOR PERMIT TO CONSTRUCT EXEMPTIONS**

**IDAPA 58.01.01.221 Category I Exemption**

“No permit to construct is required for a source that satisfies the criteria set forth in Section 220 and the following:”

**IDAPA 58.01.01.221.01 Below Regulatory Concern.**

“The maximum capacity of a source to emit an air pollutant under its physical and operational design considering limitations on emissions such as air pollution control equipment, restrictions on hours of operation and restrictions on the type and amount of material combusted, stored or processed shall be less than ten percent (10%) of the significant emission rates set out in the definition of significant at Section 006.”

The facility does not meet the BRC criteria of a Category I exemption outlined in IDAPA 58.01.01.221.01 (Below Regulatory Concern).

**IDAPA 58.01.01.300**

**PROCEDURES AND REQUIREMENTS FOR TIER I OPERATING PERMITS**

“The purposes of Sections 300 through 399 are to establish requirements and procedures for the issuance of Tier I operating permits.” St. Luke’s Twin Falls hospital is not subject to the applicable requirements in Section 300 through 399.

**IDAPA 58.01.01.577**

**AMBIENT AIR QUALITY STANDARDS FOR SPECIFIC AIR POLLUTANTS  
(PM-10, SO<sub>x</sub>, NO<sub>x</sub>, CO, Pb)**

1. External Combustion Engines
2. Internal Combustion Engines
3. 12,000 gallon jet fuel tank
4. 15,000 gallon diesel fuel tanks
5. Water Cooling towers

**IDAPA 58.01.01.577.01      **PM-10 Standards****

**IDAPA 58.01.01.577.01.a      Primary and Secondary Standards**

**IDAPA 58.01.01.577.01.a.i      Annual Standard**

“Fifty (50) micrograms per cubic meter, as an annual arithmetic mean -- never expected to be exceeded in any calendar year.”

**IDAPA 58.01.01.577.01.a.ii      24-hr Standard**

“One hundred fifty (150) micrograms per cubic meter as a maximum twenty-four (24) hour concentration -- never expected to be exceeded more than once in any calendar year.”

**IDAPA 58.01.01.577.02      **Sulfur Oxides (Sulfur Dioxide)****

**IDAPA 58.01.01.577.02.a      Primary Standards**

**IDAPA 58.01.01.577.02.a.i      Annual Standard**

“Eighty (80) micrograms per cubic meter (0.03 ppm), as an annual arithmetic mean--not to be exceeded in any calendar year.”

**IDAPA 58.01.01.577.02.a.ii      24-hr Standard**

“Three hundred sixty-five (365) micrograms per cubic meter (0.14 ppm), as a maximum twenty-four (24) hour concentration--not to be exceeded more than once in any calendar year.”

**IDAPA 58.01.01.577.02.b      Secondary Standard**

“Secondary air quality standards are one thousand three hundred (1,300) micrograms per cubic meter (0.50 ppm), as a maximum three (3) hour concentration--not to be exceeded more than once in any calendar year.”

**IDAPA 58.01.01.577.04 Nitrogen Dioxide**

“Primary and secondary air quality standards are one hundred (100) micrograms per cubic meter (0.05 ppm) – annual arithmetic mean.”

**IDAPA 58.01.01.577.05 Carbon Monoxide Primary and Secondary Standards**

**IDAPA 58.01.01.577.01.a**

“Eight (8) Hour Standard. Ten (10) milligrams per cubic meter (9 ppm) – maximum eight (8) hour concentration not to be exceeded more than once per year.”

**IDAPA 58.01.01.577.01.b**

“One (1) Hour Standard. Forty (40) milligrams per cubic meter (35 ppm) – maximum one (1) hour concentration not to be exceeded more than once per year.”

**IDAPA 58.01.01.577.7 Lead**

“Primary and secondary standards for lead and its compounds, measured as elemental lead, are one and one-half (1.5) micrograms per cubic meter (1.5 ug/m3), as a quarterly arithmetic mean -- not to be exceeded in any quarter of any calendar year.”

**IDAPA 58.01.01.578**

**DESIGNATION OF ATTAINMENT, UNCLASSIFIABLE, AND NONATTAINMENT AREAS**

The proposed site for the stationary sources, Twin Falls County, is in an attainment or unclassifiable area for NO<sub>x</sub>, CO, SO<sub>x</sub>, ozone, lead, and PM<sub>10</sub>; the appropriate modeling parameters will reflect this designation.

**IDAPA 58.01.01.590**

**NEW SOURCE PERFORMANCE STANDARDS**

The proposed sources are not subject to 40 CFR Part 60 – please see compliance review in the federal summary.

**IDAPA 58.01.01.591**

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

The proposed sources are not regulated under 40 CFR Part 61 and 40 CFR Part 63, since the St. Luke’s Twin Falls hospital is below threshold limits.

**IDAPA 58.01.01.625**

**VISIBLE EMISSIONS**

1. External Combustion Engines
2. Internal Combustion Engines

“A person shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than twenty percent (20%) opacity as determined by this section.”



It is proposed that St. Luke's Twin Falls hospital conduct a quarterly inspection of the engine stacks during periods when the engines are in operation. The inspection will be conducted during daylight hours and under normal operating conditions. The inspection will consist of a see/no see evaluation. If any visible emissions are present from the point of emission, appropriate corrective action will be taken as expeditiously as practicable, or a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625 will be performed. Records of the results of each visible emission inspection and each opacity test when conducted will be maintained. The records will include, at a minimum, the date and results of each inspection and test and a description of the following: the assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

**IDAPA 58.01.01.650**

**RULES FOR CONTROL OF FUGITIVE DUST**

St. Luke's Twin Falls hospital will take all reasonable precautions to prevent the generation of fugitive dust as outlined under IDAPA 58.01.01.650-651.

**IDAPA 58.01.01.651**

**GENERAL RULES**

"All reasonable precautions shall be taken to prevent particulate matter from becoming airborne. In determining what is reasonable, consideration will be given to factors such as the proximity of dust emitting operations to human habitations and/or activities and atmospheric conditions which might affect the movement of particulate matter. Some of the reasonable precautions may include, but are not limited to, the following:"

**IDAPA 58.01.01.651.01**      Use Of Water or Chemicals

"Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land."

**IDAPA 58.01.01.651.02**      Application Of Dust Suppressants

"Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust."

**IDAPA 58.01.01.651.03**      Use Of Control Equipment.

"Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations."

**IDAPA 58.01.01.651.04**      Covering Of Trucks

"Covering, when practical, open bodied trucks transporting materials likely to give rise to airborne dusts."

**IDAPA 58.01.01.651.05**      Paving

"Paving of roadways and their maintenance in a clean condition, where practical."

IDAPA 58.01.01.651.06 Removal Of Materials

“Prompt removal of earth or other stored material from streets, where practical.”

St. Luke’s Twin Falls hospital will monitor and maintain records of the frequency and the method(s) used (for example, water) to reasonably control fugitive emissions. A quarterly facility-wide inspection will be conducted of the sources of fugitive emissions during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the St. Luke’s Twin Falls hospital will undertake corrective action as expeditiously as practicable. Records of the results of each fugitive emissions inspection will be maintained. The records will include, at a minimum, the date of each inspection and a description of the following: the facilities assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

Records will be maintained of all fugitive dust complaints received. Appropriate corrective action will be taken as expeditiously as practicable after receipt of a valid complaint. The records will include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the facilities assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

IDAPA 58.01.01.675

**FUEL BURNING EQUIPMENT – PARTICULATE MATTER**

1. Internal Combustion Engines

St. Luke’s Twin Falls hospital will adhere to guidelines under IDAPA 58.01.01.675 through IDAPA 58.01.01.681 with regards to particulate emissions for fuel burning equipment.

IDAPA 58.01.01.676

**STANDARDS FOR NEW SOURCES**

1. Internal Combustion Engines

“A person shall not discharge into the atmosphere from any fuel burning equipment with a maximum rated input of ten (10) million BTUs per hour or more, and commencing operation on or after October 1, 1979, particulate matter in excess of the concentrations shown in the following table:”

Fuel Type	Allowable Particulate gr/dscf	Emissions, @Oxygen
Diesel	0.05	3%
Gas	0.015	3%

As calculated in Appendix C, the PM emissions from each internal combustion engine will comply with the applicable IDAPA standard. External combustion engines are each rated less than 10 MMBtu/hr. Therefore; the boilers are not applicable.

**IDAPA 58.01.01.700-701**

**PARTICULATE MATTER-PROCESS WEIGHT LIMITATIONS**

Not applicable to the St. Luke's Twin Falls hospital maintains fuel burning equipment. Therefore, this rule is not applicable for the hospital.

**IDAPA 58.01.01.775**

**RULES FOR CONTROL OF ODORS**

St. Luke's Twin Falls hospital will follow the guidelines set under IDAPA 58.01.01.775 through IDAPA 58.01.01.776 to control odorous emissions from all sources for which no gaseous emission control rules apply.

**IDAPA 58.01.01.776**

**GENERAL RULES**

**IDAPA 58.01.01.776.01**

**General Restrictions**

"No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids into the atmosphere in such quantities as to cause air pollution."

## **8.0 T-RACT Analysis**

Modeled cadmium emissions resulting from calculated emission rates from the heat and steam boilers exceed the AACC. Cadmium is found in small concentrations in the boilers during natural gas combustion. Modeling refinements were made to the boiler stack parameters with no success.

CH2M HILL has prepared a (Toxics Reasonably Achievable Control Technology) T-RACT analysis for determining what level of control could reasonably be achieved for cadmium emissions. The T-RACT must be technically feasible, environmentally sound, and economically achievable. If a control technology is not feasible, the standard may be based on a work practice, among other considerations. The SLMVH cadmium T-RACT analysis is included in Appendix G.